Name: _____ Period _____

Unit 5: Forms of Linear equations Homework Due: Monday 12/16

**Linear Equation Forms**

| Slope-intercept form | Standard form | Point-slope form |
|---|---|---|
| $y = mx + b$<br>m = slope; b = y-intercept | $Ax + By = C$<br>A and B are both not 0 | $(y - y_1) = m(x - x_1)$<br>$(x_1, y_1)$ is a point on the line and m is the slope |
| $y = -\frac{2}{3}x + \frac{5}{3}$ | $2x + 3y = 5$ | $y - 1 = -\frac{2}{3}(x - 1)$ |

1) What is the equation of a line with slope –3 and y-intercept -7?

2) Write an equation in slope-intercept form for each of the following lines:

(a) the line containing A (0, 7) and B (7, 0)

(b) slope: 2
containing P(4, 5)

(c) slope: 0
y-intercept: -7

3) Write an equation in point-slope form for a line passing through points (2,7) & (1, -4); then rewrite the equation in slope-intercept form.

4) Find the x and y-intercepts of the following equation written in standard form:

$9x - 6y = -72$